

Quantifying the Achievement Gap

Baseline characteristics of African-American Student Achievement in Michigan

A black and white photograph of a young African American child with a joyful expression, looking slightly to the side. The child's face is the central focus, with their eyes and smile clearly visible. The background is softly blurred, showing what appears to be a bookshelf with books.

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*Baseline characteristics of African-American
Student Achievement in Michigan*

Top & Bottom Thirty Analysis

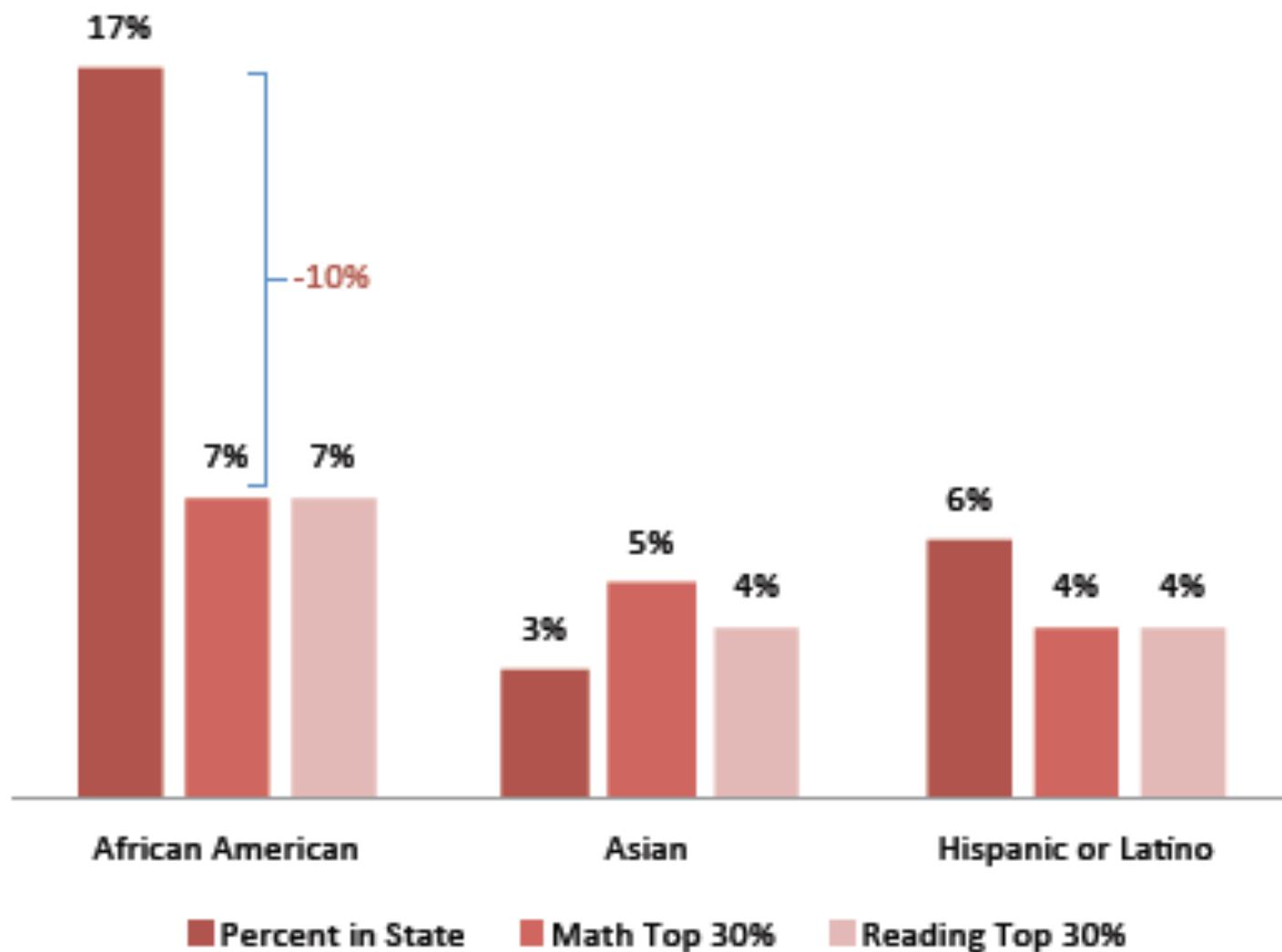
Overall Representation		
Ethnicity	Number (FAY) in State	Percent in State
Asian	21,304	3%
African American	122,916	17%
Latino	45,288	6%
Multiracial	23,074	2%
White	520,891	71%

African-American Students in Top 30%

Ethnicity	Percent in State	Math Top 30%	Reading Top 30%
Asian	3%	5%	4%
African American	17%	7%	7%
Latino	6%	4%	4%
Multiracial	2%	0%	2%
White	71%	81%	81%

7% of students in Top 30 (Reading and Math) are African-American (**Underrepresentation**)

Top 30 Percent Ethnic Representation Gap

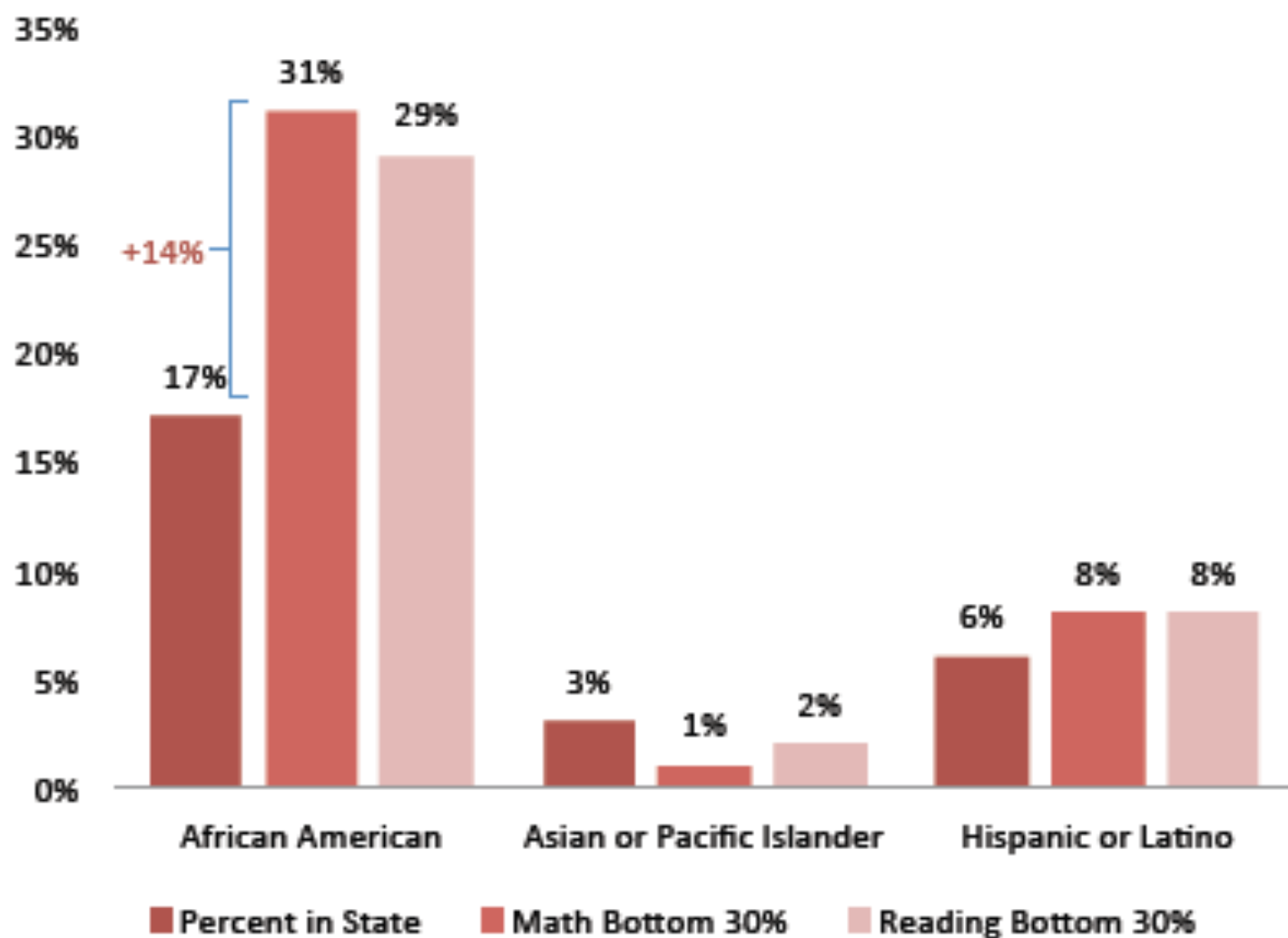


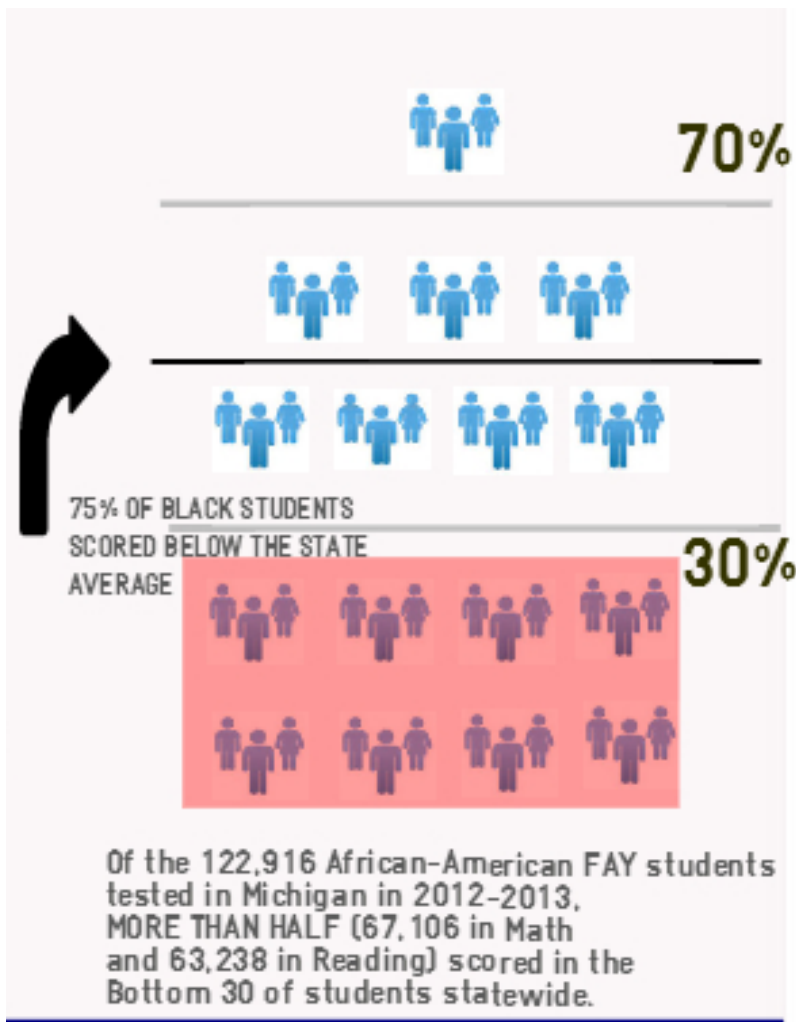
African-American Students in Bottom 30%

Ethnicity	Percent in State	Math Bottom 30%	Reading Bottom 30%
Asian	3%	1%	2%
African American	17%	31%	29%
Latino	6%	8%	8%
Multiracial	2%	3%	2%
White	71%	56%	58%

31% of students in Bottom 30 Math and 29% in Bottom 30 Reading are African-American
(Overrepresentation)

Bottom 30% Ethnic Representation Gap





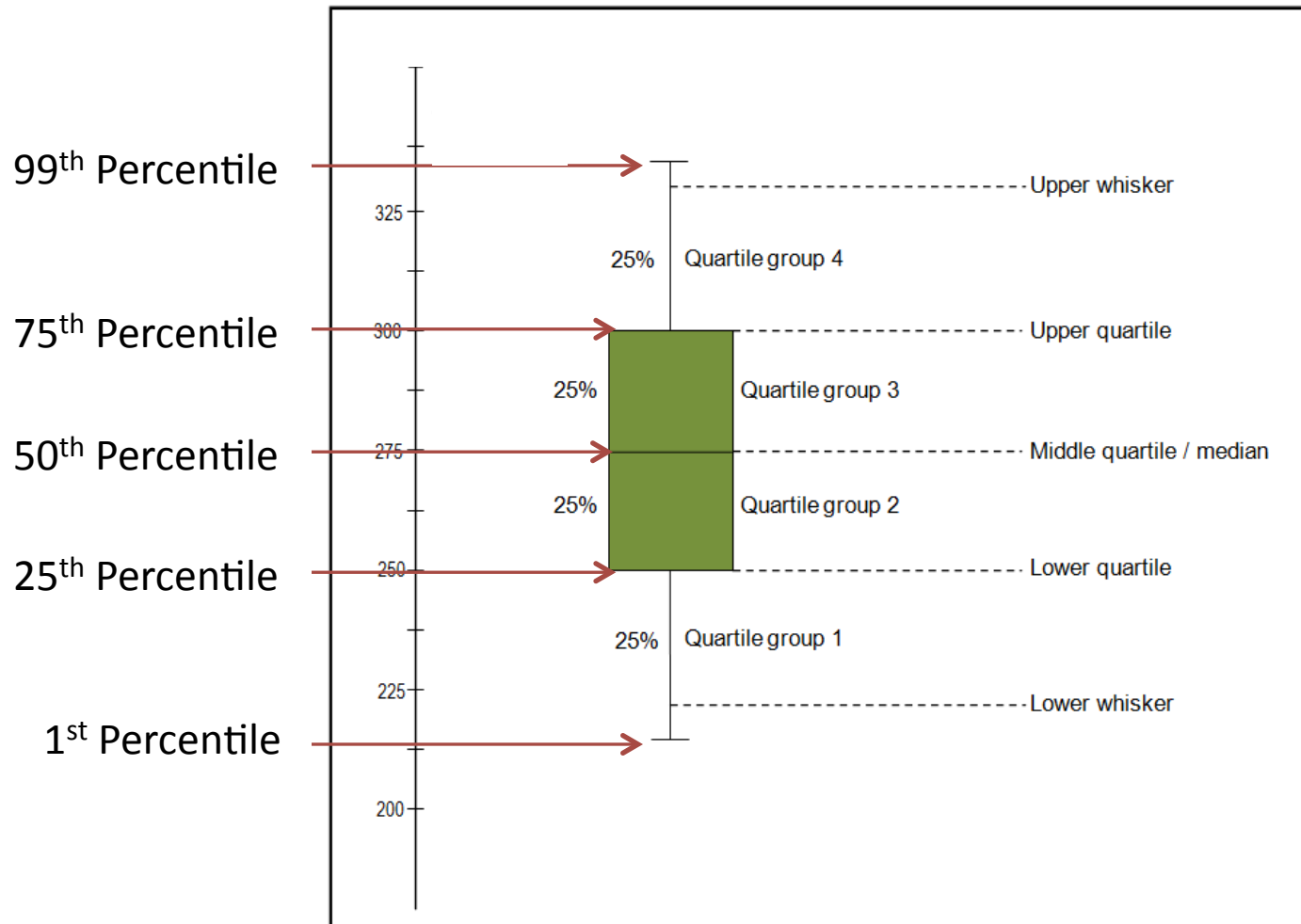
MORE THAN HALF of Michigan's Black Students are in the BOTTOM30

122,916 in State | 67,106 in Bottom 30

Recap/National Context

- NAEP: Michigan gap between African-American and White students is larger than the national gap (statistically-significantly so in 2008)
- NCES via Orfield et al.: MI is 4th highest in African-American school segregation: 50.4% of black students attend schools that are at least 90% minority
- MDE data: African-American students represent 17% of all tested students but only 7% of the Top 30 students across all grades
- More than half of Michigan black students are in the Bottom 30 statewide

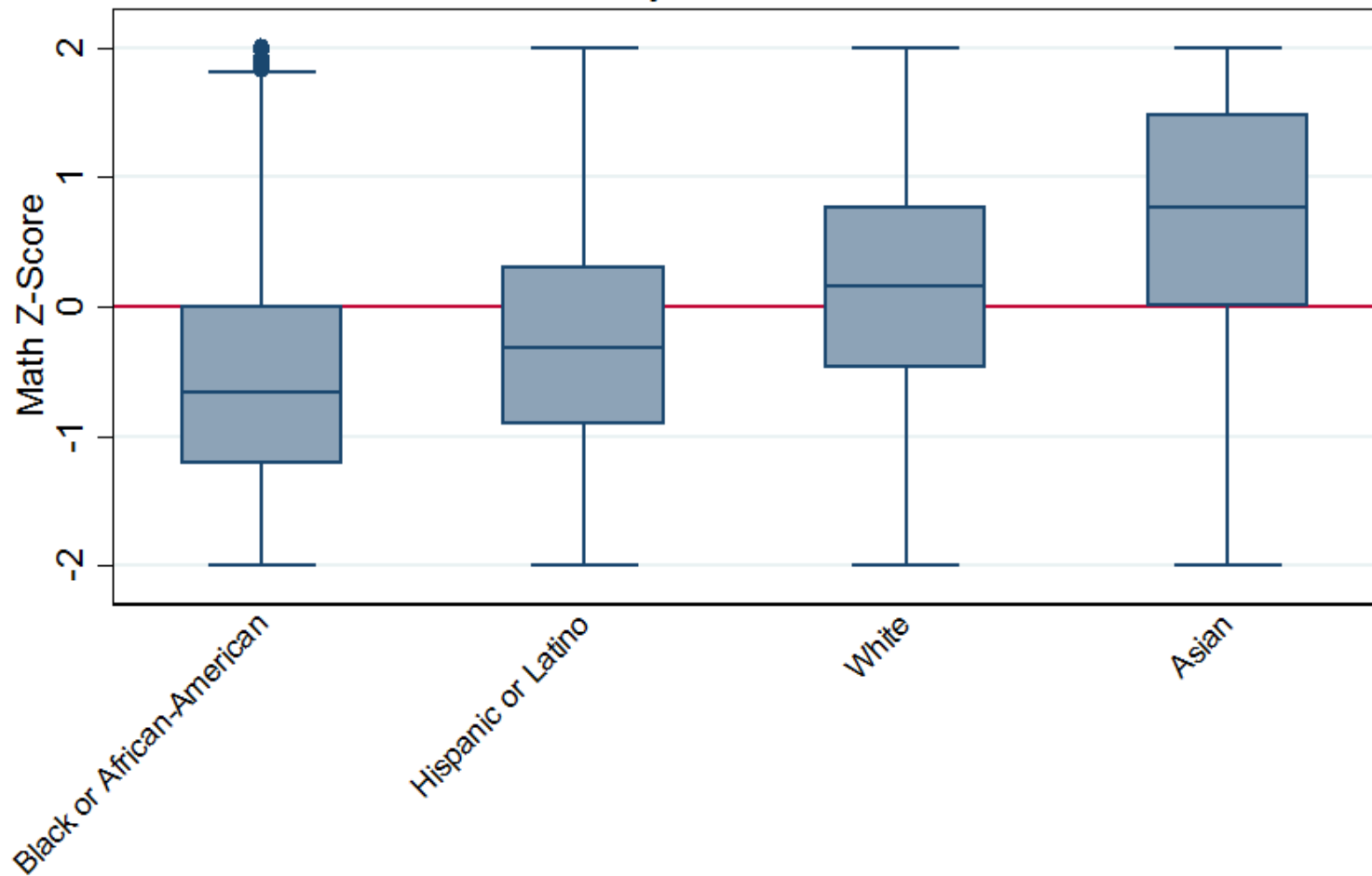
Boxplots: A Refresher



http://www.wellbeingatschool.org.nz/sites/default/files/W@S_boxplot-labels.png

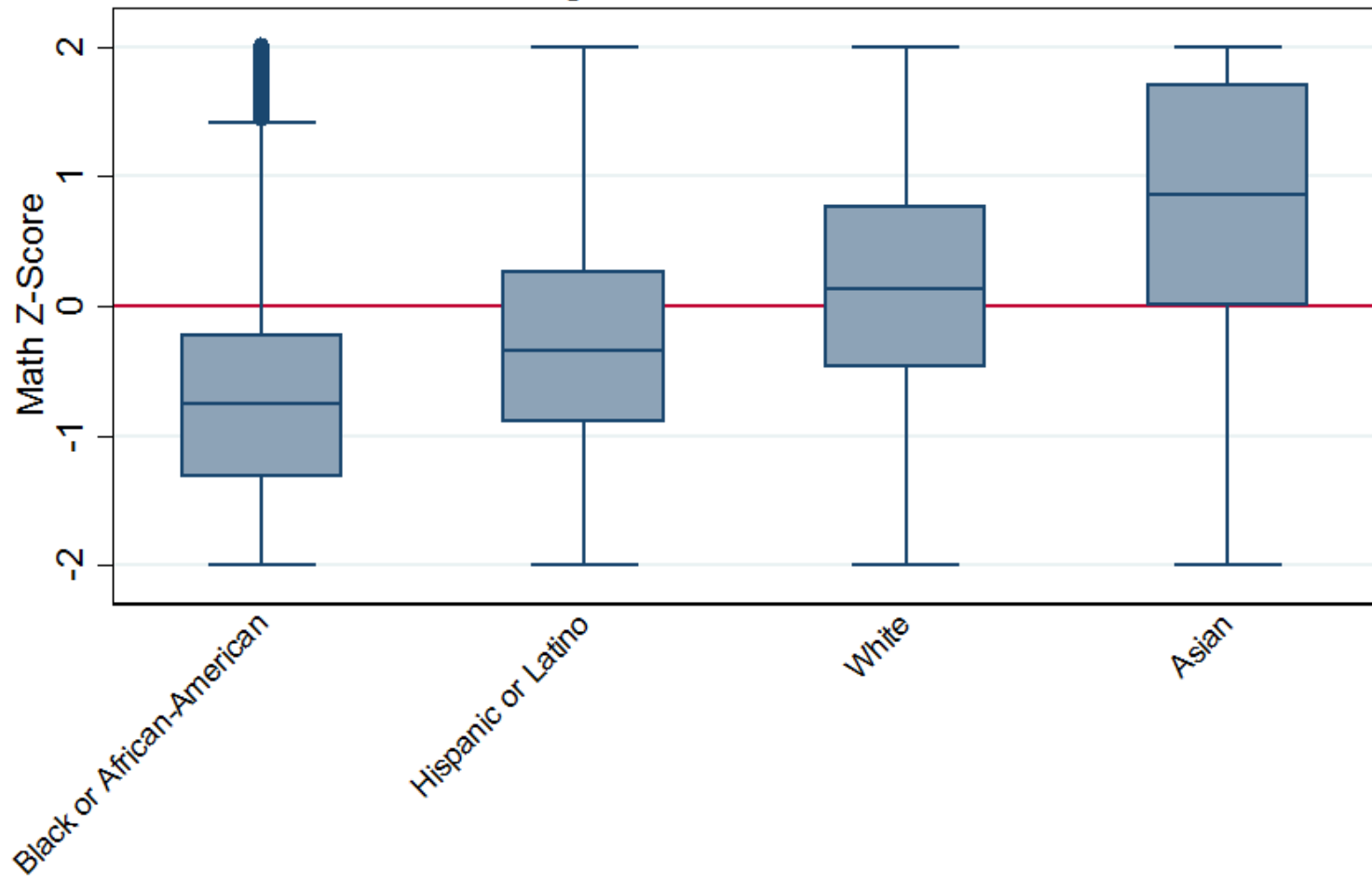
Student Achievement Boxplots by Race/Ethnicity

Elementary School - 2013 Math



Student Achievement Boxplots by Race/Ethnicity

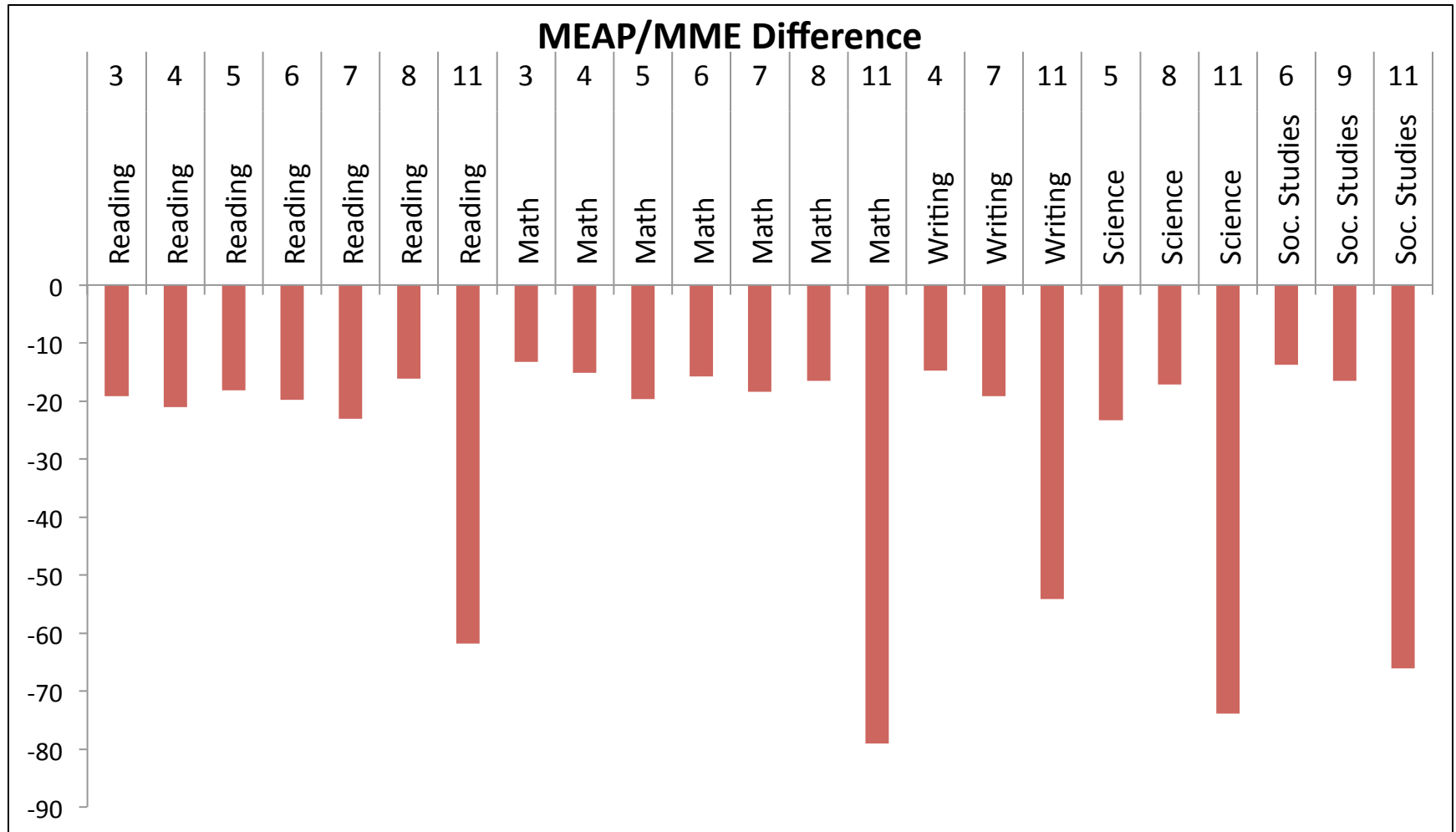
High School - 2013 Math



Notes on Box Plots

- African-American students are one of the only groups in which the 99th percentile had z-scores less than 2.
- All races/ethnicities have students at the bottom (z-scores of -2 or lower).
- The African-American 75th percentile reaches state average, i.e. approximately 75% of African-American students scored below state average in 2013.
- Approximately 20 percent of African-American students score above the white student median score.
- From ES to HS, it appears that the top portion of the distribution (99th and 75th percentiles) scored lower.

Assessment Score Gap Between African-American Young Men and Other Students



Assessment Score Gap

- Results include MEAP/MME only, not specialized assessments (because the scales are different)
- Proficiency rates are low for African-American male students, but are also fairly low for other students in math and science.
- African-American male students scored between 13 and 23 (MEAP) and between 54 and 79 (MME) points lower than other students in 2012-2013
- No particular pattern across grades, though data present a snapshot, not longitudinal

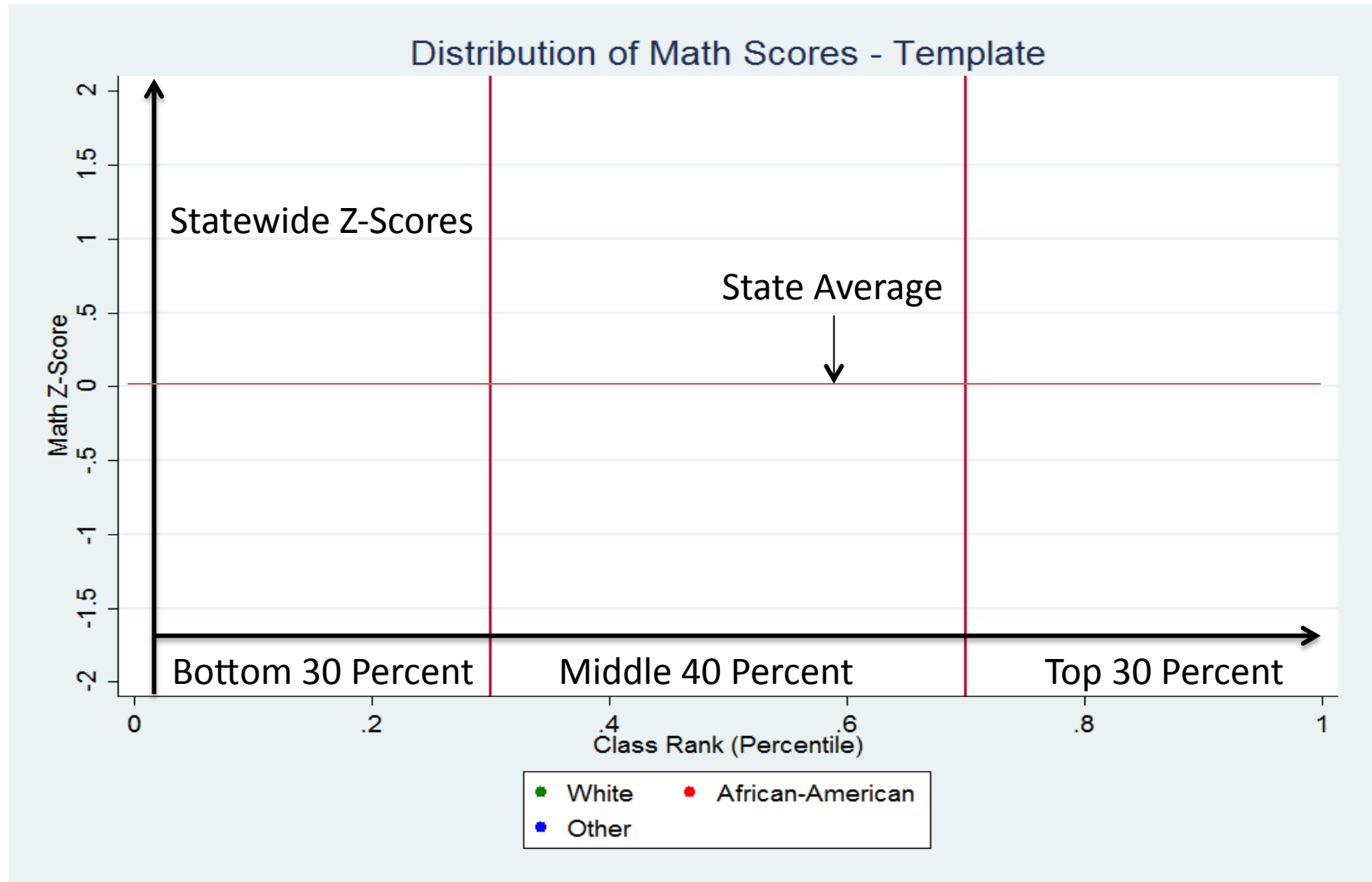
Proficiency Gap (Example for Math)

% Proficient Math (2012-2013)			
	Black Male Students	Other Students	Difference
3	21%	52%	31%
4	23%	48%	25%
5	23%	47%	24%
6	18%	42%	24%
7	16%	40%	24%
8	13%	36%	23%
11	8%	30%	22%

Transition to School-Level Graphs

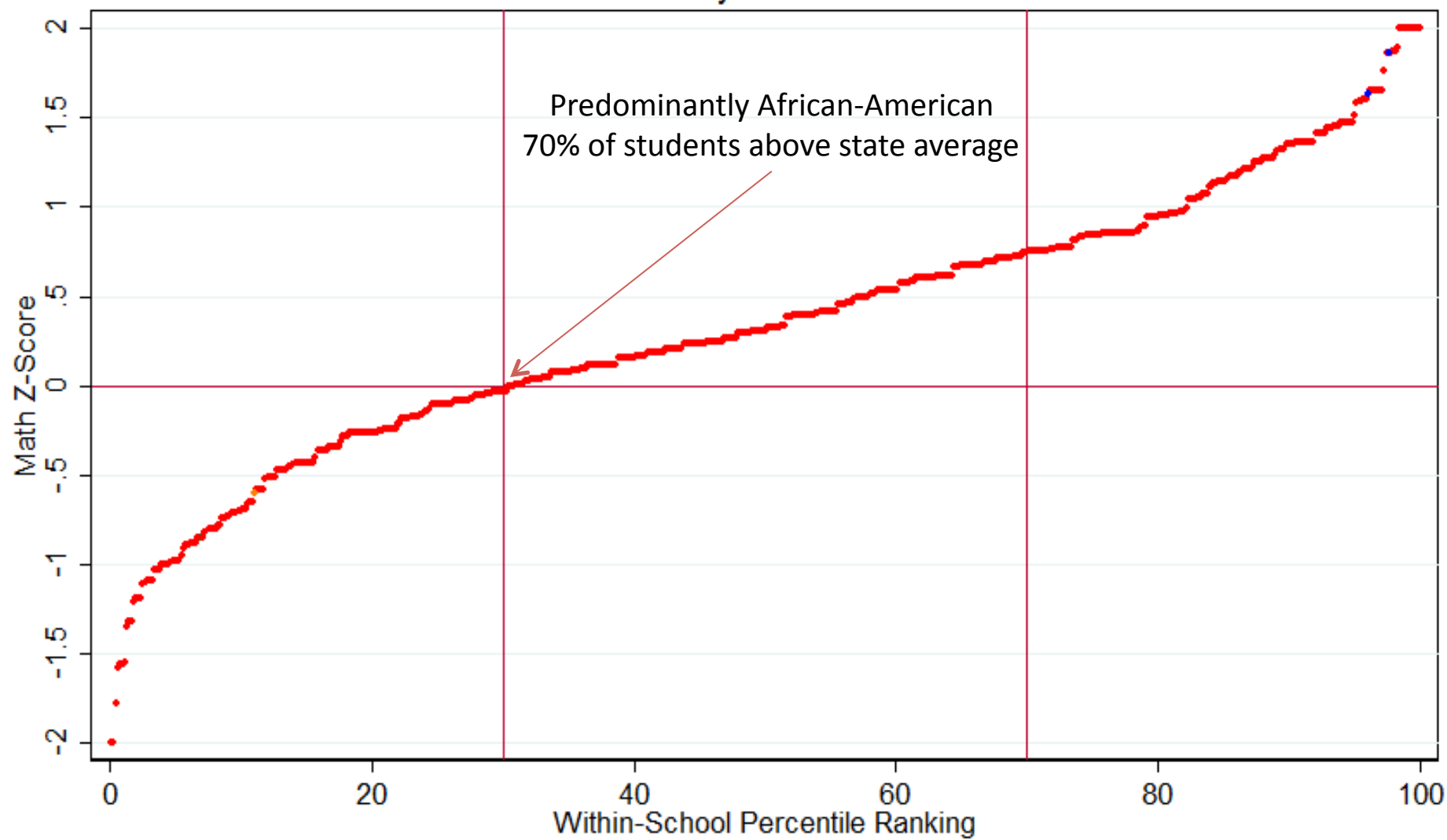
- State level information, especially when more detailed than central tendency or aggregate information, provides a good high-level snapshot of performance
- The real work of educating children happens at the school level, with support and input from the district
- African-American student performance can vary widely from student to student and school to school, but there are schools that fall into certain patterns

Individual Student Achievement by Percentile, by Ethnicity



Distribution of Math Z-Scores

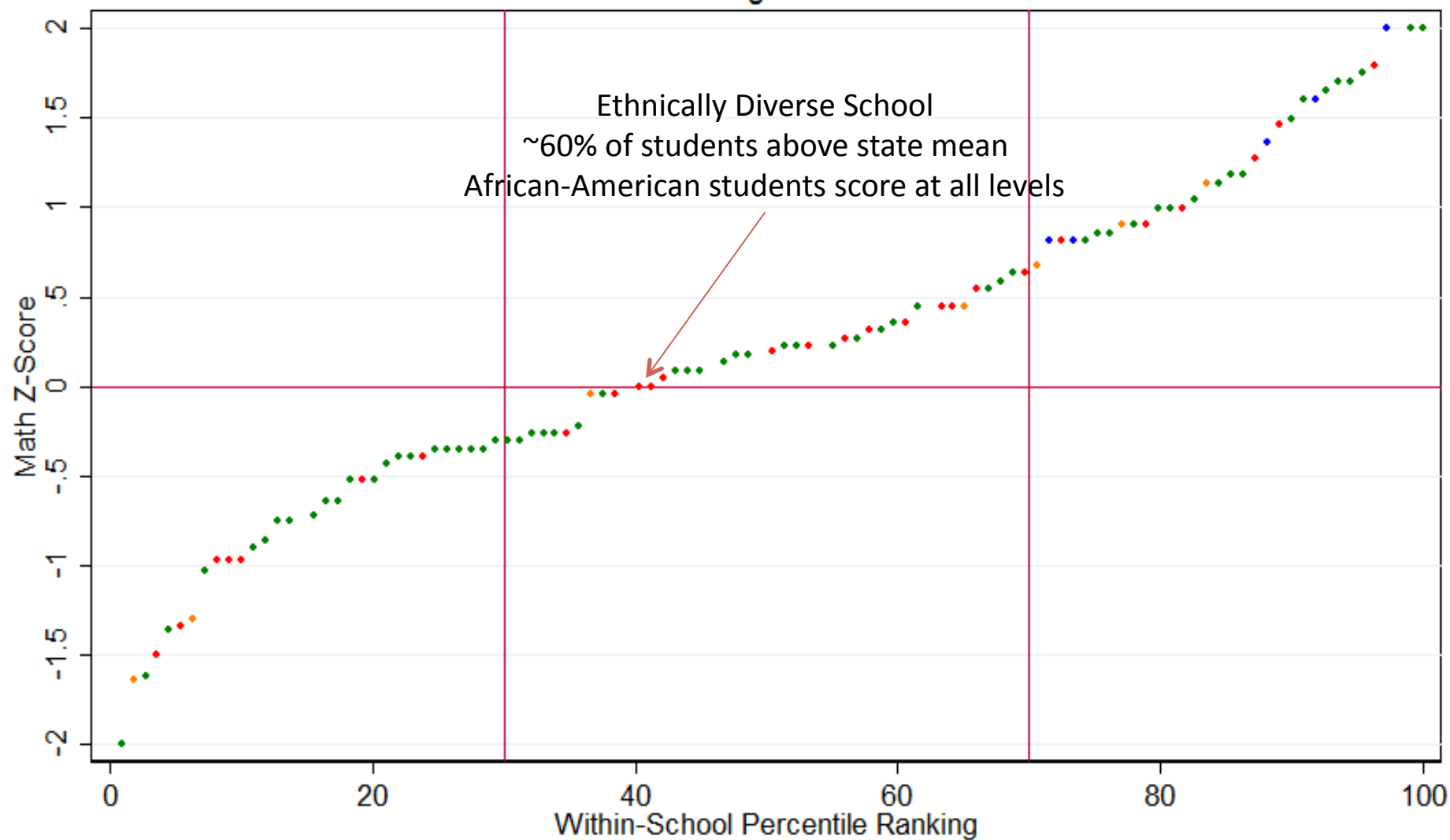
Elementary Reward School



- White
- Black or African-American
- Asian
- Hispanic or Latino

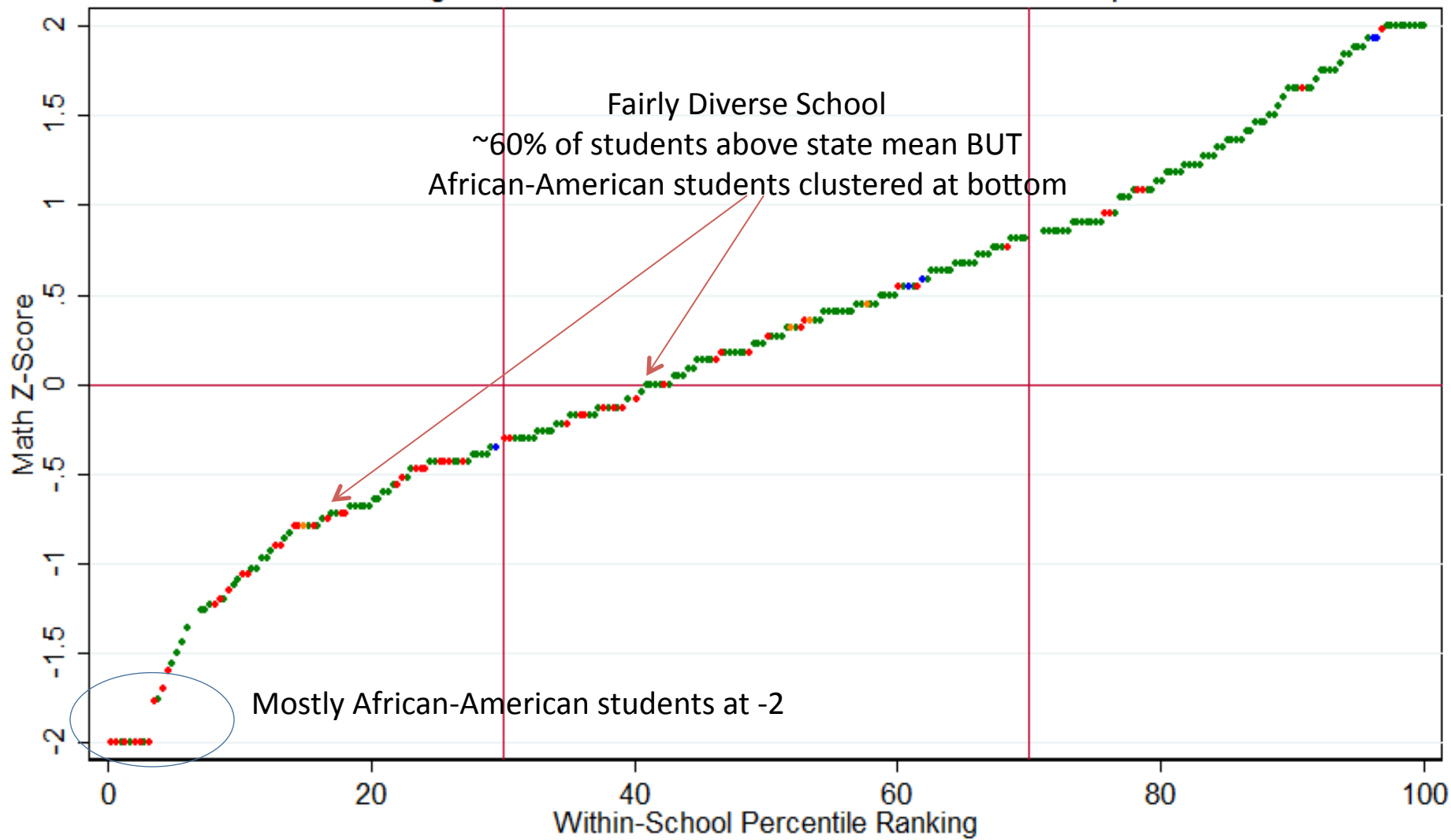
Distribution of Math Z-Scores

BTO High School



Distribution of Math Z-Scores

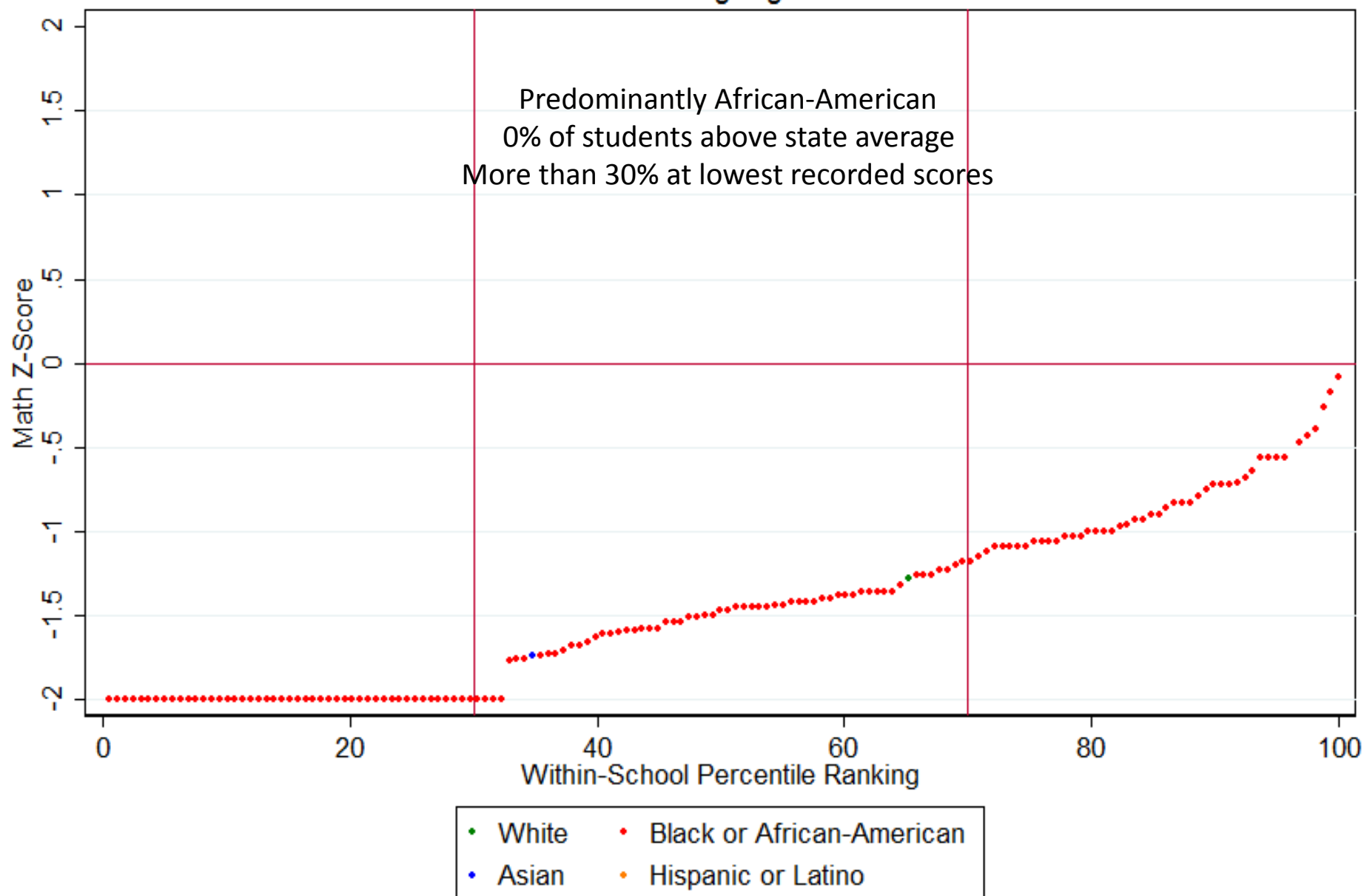
High School with African-American Achievement Gap



- White
- Black or African-American
- Asian
- Hispanic or Latino

Distribution of Math Z-Scores

Low-Achieving High School



Conclusions & Implications

- Michigan gap between African-American and White students is larger than the national gap (NAEP)
- The gap between African American students and other students is already present in the third grade, indicating need for interventions and monitoring in early childhood and early elementary school
- Need more information on performance in 9th and 10th grades
- The greatest discrepancy between black and white students is in the percentage attending Priority Schools, the bottom 5% of ranked schools in TTB; much higher percentage of African-American students attended these low achieving schools in 2012-2013 (16% of AA students versus 1% of white students). Priority Schools are composed of 72% AA students.

Conclusions & Implications (cont.)

- There are 19,985 students with math z-scores capped at -2 (i.e. lowest possible assessment scores). Of those, 43% are African-American students despite the fact that African-American students make up only 17% of the Michigan student population. Simply raising the achievement of the lowest-performing students would have an impact on a significant number of Michigan students.
- There are high-performing African-American students in Michigan as well as high-performing schools with large African-American student populations, but there are many schools with no high-performing black students.
- Different strategies are required to meet the learning needs of African-American students in different (kinds of) schools.

Caveat

- Recognize that what we have most ready access to at the state level are assessment results, less access to differential practices and resources, but are really hoping to get to the latter! One major goal of Achievement Gap research agenda is to seek more clarity on practices influencing the gap